



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,119	03/23/2004	Kenneth Edward Hunt	16359D1-US	5538

7590 06/24/2005
Darin E. Bartholomew
Patent Department
DEERE & COMPANY
One John Deere Place
Moline, IL 61265-8098

EXAMINER

MAMMEN, NATHAN SCOTT

ART UNIT	PAPER NUMBER
----------	--------------

3671

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/808,119

Applicant(s)

HUNT ET AL.

Examiner

Nathan S Mammen

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-26 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/04, 9/04, 4/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 15-26 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 10/808,237. Although the conflicting claims are not identical, they are not patentably distinct from each other because the method steps, while worded slightly differently, are in essence the same.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3671

4. Claims 1, 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,974,347 to Nelson.

The Nelson '347 patent discloses a mower comprising a plurality of wheel assemblies (46, 48), the wheel assemblies associated with a wheel (46a, 46b, 48a, 48b), an electrical steering motor (26), and an electrical drive motor (162). A controller (see generally Fig. 6) controls a steered direction of the wheel by controlling the operation of the steering and drive motors. A propulsion unit (42) rotates a cutting blade. A mowing deck (62) houses the cutting blade and includes indentions (see Fig. 2) for receiving the wheel assemblies. The front and rear portions of the mower deck constitute a frame for supporting the mower deck on the wheel assemblies. The cutting blade (56) cuts a swath equal to a spacing of the wheels. The propulsion unit is an electric motor.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,007,234 to Shurman et al. in view of U.S. Patent No. 6,615,108 to Peless et al.

The Shurman '234 patent discloses a mower comprising a plurality of wheel assemblies (21). Each wheel assembly is associated with a wheel (e.g., 21a, 21b), a steering motor (20a) and a drive motor (20b), a propulsion unit (10a-d) rotates a cutting blade (12a-d), and a mower

Art Unit: 3671

deck (15) houses the cutting blade. The mower deck has indentations (see Fig. 1a) for receiving the wheels, and each end of the mower deck constitutes a frame for supporting the mower deck and the propulsion unit on the wheel assemblies. What the Shurman '234 patent does not disclose is that the mower has a controller for controlling a steered direction of the wheels. The Peless '108 patent teaches that it is known in the art to provide a mower with a controller (41) for controlling the steered direction of the mower. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the mower of the Shurman '234 patent with the controller of the Peless '108 patent in order to provide a mower capable of operating autonomously without the need for a preprogrammed map (see Peless – col. 2, lines 5-37).

Regarding claims 2: The Peless '108 patent further teaches that the mower moves in a linear, rotating, and arc mode (see Fig. 2a).

7. Claims 3-6, 10, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,007,234 to Shurman et al. in view of U.S. Patent No. 6,615,108 to Peless et al., as applied to claim 1 above, and further in view of U.S. Patent No. 5,667,032 to Kamlukin.

The combination of the Shurman '234 and Peless '108 patents discloses the claimed invention, as stated in paragraph 6 above, except for the orientation of the wheels during steering. The Kamlukin '032 patent teaches that it is known in the art to provide a lawn mower in which the wheels are steered straight or are steered around a critical point such that the wheels remain tangent to an arc centered on the critical point. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the mower of the

Art Unit: 3671

combination of the Shurman '234 and Peless '108 patents with the steering arrangement as taught by the Kamlukin '032 patent, in order to provide the mower with a tight turning radius.

8. Claims 15-26 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 5,667,032 to Kamlukin.

The Kamlukin '032 patent discloses a low radius pivoted rear wheel steered mower. While the Kamlukin '032 patent does not describe in detail the method for operating the mower, given its structure, the Kamlukin mower is inherently operated in the same manner as instantly claimed. Alternatively, it would have been obvious to one having ordinary skill in the art to operate the Kamlukin mower in the manner as claimed, since the claimed method and operation would be the normal and logical manner in which to mow a lawn with the Kamlukin mower.

The Kamlukin mower operates by defining a reference axis of rotation (99) at a desired point. The wheels (Fig. 3 - 12, 14, 32, 34) are oriented generally tangentially to a circular region about the reference axis. Rotational mechanical energy is applied to the wheels (12, 13) to rotate the mower about the reference axis.

Regarding claims 16-26: The Kamlukin disclosure shows the outer periphery of the mower deck (and thus the cutting blade) as the critical point of rotation (see Fig. 3). A user would inherently operate the Kamlukin mower by identifying an unmowed portion as the target area to be mowed.

Allowable Subject Matter

9. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 3671

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Mammen whose telephone number is (571) 272-6991. The examiner can normally be reached Monday through Thursday from 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at (571) 272-6998. The fax number for this Group is (703) 872-9306.

A handwritten signature in black ink, appearing to read 'Nathan S. Mammen', with a long horizontal flourish extending to the right.

**Nathan S. Mammen
Patent Examiner
Group 3600**

**NSM
6/22/05**